



## PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PC4550FCJ	FOR FURTHER ACTION See Form PCT/IPEA/416	
International application No. PCT/JP2003/016920	International filing date (day/month/year) 26 December 2003 (26.12.2003)	Priority date (day/month/year) 26 December 2002 (26.12.2002)
International Patent Classification (IPC) or national classification and IPC H01R 24/00		
Applicant FCI		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand 13 August 2004 (13.08.2004)	Date of completion of this report 23 February 2005 (23.02.2005)
Name and mailing address of the IPEA/JP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP2003/016920

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
  - ☐ publication of the international application (under Rule 12.4)
  - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ The international application as originally filed/furnished
- ☐ the description:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the claims:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_, as amended (together with any statement) under Article 19
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the drawings:
- pages \_\_\_\_\_, as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/JP03/16920

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement****1. Statement**

Novelty (N)	Claims	1, 3-5	YES
	Claims	2	NO
Inventive step (IS)	Claims		YES
	Claims	1-5	NO
Industrial applicability (IA)	Claims	1-5	YES
	Claims		NO

**2. Citations and explanations**

Document 1: JP, 2527144, Y2 (Molex, Inc.)  
February 26, 1997 (02.26.97)

Document 2: JP, 6-60953, A (Molex, Inc.)  
March 4, 1994 (03.04.94)

Document 3: JP, 4-370677, A (AMP (Japan) Ltd.)  
December 24, 1992 (12.24.92)

Document 4: JP, 2002-93502, A (Fujitsu Ten Limited, SMK K.K.), March 29, 2002 (03.29.02)

The inventions relating to claims 1 and 5 do not appear to involve an inventive step based on document 1 cited in the ISR (paragraphs 0014-0020) and document 2 cited in the ISR (column 6, lines 22-33). In place of a structure wherein right and left rear walls 7A, 7B of a contact portion housing 2 are directly in contact with stoppers 9A, 9B in right and left rear portion of a tail portion housing 3, employing a structure wherein a bottom surface 27 of a movable housing 9 of document 2 is received by a receiving portion 26 of each female terminal of female terminal 5 group to support the movable housing 9 would be easy for a party skilled in the art.

The invention relating to claim 2 is described in document 1 (paragraphs 0014-0020); therefore, it does not appear to be novel or involve an inventive step.

The invention relating to claim 3 does not appear to involve an inventive step based on documents 1 and 2 and document 3 (column 4, lines 14-18). A contact arrangement structure constituted so that a contact portion 41' at each contact 40' indicated in document 3 is elastically outwardly projected from a groove 37 on a side surface of a central projection portion 36 of a second housing 30' is well-known art; therefore, applying this arrangement structure to the contact of documents 1 and 2 would be easy for a party skilled in the art.

The invention relating to claim 4 does not appear to involve an inventive step based on documents 1, 2 and 4. The zigzag structure of a contact indicated in document 4 (Fig. 10) is well-known art; therefore, employing this arrangement configuration as the arrangement configuration of a contact of documents 1 and 2 could be easy for a party skilled in the art.

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INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

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International application No. PCT/JP03/16920	International filing date (day/month/year) 26. 12. 2003	Priority date (day/month/year) 26. 12. 2002
International Patent Classification (IPC) or national classification and IPC  Int Cl <sup>7</sup> H01R24/00		
Applicant FCI		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>3</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p style="margin-left: 40px;"><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in electronic form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand 13. 08. 2004	Date of completion of this report 23. 02. 2005
Name and mailing address of the IPEA/JP Japanese Patent Office	Authorized officer KURITA, Masahiro
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP03/16920

## Box No. I Basis of the report

## 1. With regard to the language, this report is based on:

- ☐ the international application in the language in which it was filed
- ☐ a translation of the international application into \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rules 12.3(a) and 23.1(b))
- ☐ publication of the international application (Rule 12.4(a))
- ☐ international preliminary examination (Rules 55.2(a) and/or 55.3(a))

2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☒ the international application as originally filed/furnished
- ☐ the description:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the claims:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- pages\* \_\_\_\_\_ received by this Authority on 03. 12. 2004 \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the drawings:
- pages \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

# INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/JP03/16920

**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

## 1. Statement

Novelty (N)	Claims	_____ 1, 3-5 _____	YES
	Claims	_____ 2 _____	NO
Inventive step (IS)	Claims	_____	YES
	Claims	_____ 1-5 _____	NO
Industrial applicability (IA)	Claims	_____ 1-5 _____	YES
	Claims	_____	NO

## 2. Citations and explanations (Rule 70.7)

See attached sheet

2. Citations and explanations (Rule 70.7)

Citation 1: JP 2527144 Y2 (Molex Incorporated)  
1997.02.26

Citation 2: JP 6-60953 A (Molex Incorporated)  
1994.03.04

Citation 3: JP 4-370677 A (AMP Japan, Ltd.)  
1992.12.24

Citation 4: JP2002-93502 A (Fujitsu Ten, Limited; SMK Corporation)  
2002.03.29

The inventions according to Claims 1 and 5 do not have inventive steps, in view of Citation 1 (sections [0014] to [0020]), cited in the International Search Report; and Citation 2 (column 6, lines 22 to 33), cited in the International Search Report. The structure of left and right rear section walls 7A and 7B of conductor section housing 2 of Citation 1, which abuts stoppers 9A and 9B, are at left and right rear sections of tail section housing 3. A person of ordinary skill in the art could have readily used the structure of Citation 2 instead of the structure of Citation 1. The structure of Citation 2 supports movable housing 9 by the bottom surface 27 of movable housing 9 being received into receiving sections 26 of each female terminal 5 of the female terminal 5 group.

The invention according to Claim 2 does not have novelty or an inventive step, in view of the disclosures of sections [0014] to [0020] of Citation 1.

The invention according to Claim 3 does not have an inventive step, in view of Citations 1 and 2, and Citation 3 (column 4, lines 14 to 18). A structure of arranging contacts having a constitution wherein contact portions 41' of each contact 40', shown in Citation 3, elastically protrude outwardly from groove 37 of the side surface of central protrusion 36 of second housing 30' is a well-known art. Therefore, a person of ordinary skill in the art could have readily applied such an arrangement to the contacts of Citation 1 and Citation 2.

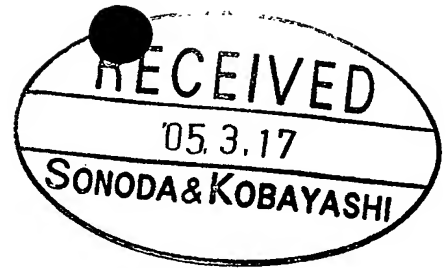
The invention according to Claim 4 does not have an inventive step, in view of Citations 1, 2, and 4. Since the lattice-form array configuration of the contacts shown in Figure 10 of Citation 4 is a well-known art, a person of ordinary skill in the art could have readily used this array configuration as the array configurations of Citation 1 and Citation 2.

特 許 協 力 条 約

PCT

特許性に関する国際予備報告（特許協力条約第二章）

（法第12条、法施行規則第56条）  
〔PCT36条及びPCT規則70〕



出願人又は代理人 の書類記号 PC4550FCJ	今後の手続きについては、様式PCT/IPEA/416を参照すること。	
国際出願番号 PCT/JP03/16920	国際出願日 (日.月.年) 26.12.2003	優先日 (日.月.年) 26.12.2002
国際特許分類 (IPC) Int. Cl <sup>7</sup> H01R24/00		
出願人 (氏名又は名称) エフシーアイ		

- この報告書は、PCT35条に基づきこの国際予備審査機関で作成された国際予備審査報告である。  
法施行規則第57条（PCT36条）の規定に従い送付する。
- この国際予備審査報告は、この表紙を含めて全部で 3 ページからなる。
- この報告には次の附属物件も添付されている。
  - ☐ 附属書類は全部で \_\_\_\_\_ ページである。
    - ☐ 補正されて、この報告の基礎とされた及び／又はこの国際予備審査機関が認めた訂正を含む明細書、請求の範囲及び／又は図面の用紙（PCT規則70.16及び実施細則第607号参照）
    - ☐ 第I欄4.及び補充欄に示したように、出願時における国際出願の開示の範囲を超えた補正を含むものとこの国際予備審査機関が認定した差替え用紙
  - ☐ 電子媒体は全部で \_\_\_\_\_ （電子媒体の種類、数を示す）。  
配列表に関する補充欄に示すように、コンピュータ読み取り可能な形式による配列表又は配列表に関連するテーブルを含む。（実施細則第802号参照）

4. この国際予備審査報告は、次の内容を含む。

- ☒ 第I欄 国際予備審査報告の基礎
- ☐ 第II欄 優先権
- ☐ 第III欄 新規性、進歩性又は産業上の利用可能性についての国際予備審査報告の不作成
- ☐ 第IV欄 発明の単一性の欠如
- ☒ 第V欄 PCT35条(2)に規定する新規性、進歩性又は産業上の利用可能性についての見解、それを裏付けるための文献及び説明
- ☐ 第VI欄 ある種の引用文献
- ☐ 第VII欄 国際出願の不備
- ☐ 第VIII欄 国際出願に対する意見

国際予備審査の請求書を受理した日 13.08.2004	国際予備審査報告を作成した日 23.02.2005	
名称及びあて先 日本国特許庁 (IPEA/JP) 郵便番号100-8915 東京都千代田区霞が関三丁目4番3号	特許庁審査官 (権限のある職員)  栗田 雅弘	3K 8813
電話番号 03-3581-1101 内線 3332		



## 第I欄 報告の基礎

1. この国際予備審査報告は、下記に示す場合を除くほか、国際出願の言語を基礎とした。

- ☐ この報告は、\_\_\_\_\_ 語による翻訳文を基礎とした。  
それは、次の目的で提出された翻訳文の言語である。
- ☐ PCT規則12.3及び23.1(b)にいう国際調査
- ☐ PCT規則12.4にいう国際公開
- ☐ PCT規則55.2又は55.3にいう国際予備審査

2. この報告は下記の出願書類を基礎とした。(法第6条(PCT14条)の規定に基づく命令に応答するために提出された差替え用紙は、この報告において「出願時」とし、この報告に添付していない。)

☒ 出願時の国際出願書類

☐ 明細書

第 \_\_\_\_\_ ページ、出願時に提出されたもの  
第 \_\_\_\_\_ ページ\*、 \_\_\_\_\_ 付けて国際予備審査機関が受理したもの  
第 \_\_\_\_\_ ページ\*、 \_\_\_\_\_ 付けて国際予備審査機関が受理したもの

☐ 請求の範囲

第 \_\_\_\_\_ 項、出願時に提出されたもの  
第 \_\_\_\_\_ 項\*、PCT19条の規定に基づき補正されたもの  
第 \_\_\_\_\_ 項\*、 \_\_\_\_\_ 付けて国際予備審査機関が受理したもの  
第 \_\_\_\_\_ 項\*、 \_\_\_\_\_ 付けて国際予備審査機関が受理したもの

☐ 図面

第 \_\_\_\_\_ ページ/図、出願時に提出されたもの  
第 \_\_\_\_\_ ページ/図\*、 \_\_\_\_\_ 付けて国際予備審査機関が受理したもの  
第 \_\_\_\_\_ ページ/図\*、 \_\_\_\_\_ 付けて国際予備審査機関が受理したもの

☐ 配列表又は関連するテーブル

配列表に関する補充欄を参照すること。

3. ☐ 補正により、下記の書類が削除された。

☐ 明細書 第 \_\_\_\_\_ ページ  
☐ 請求の範囲 第 \_\_\_\_\_ 項  
☐ 図面 第 \_\_\_\_\_ ページ/図  
☐ 配列表(具体的に記載すること) \_\_\_\_\_  
☐ 配列表に関連するテーブル(具体的に記載すること) \_\_\_\_\_

4. ☐ この報告は、補充欄に示したように、この報告に添付されかつ以下に示した補正が出願時における開示の範囲を超えてされたものと認められるので、その補正がされなかったものとして作成した。(PCT規則70.2(c))

☐ 明細書 第 \_\_\_\_\_ ページ  
☐ 請求の範囲 第 \_\_\_\_\_ 項  
☐ 図面 第 \_\_\_\_\_ ページ/図  
☐ 配列表(具体的に記載すること) \_\_\_\_\_  
☐ 配列表に関連するテーブル(具体的に記載すること) \_\_\_\_\_

\* 4. に該当する場合、その用紙に“superseded”と記入されることがある。

第V欄 新規性、進歩性又は産業上の利用可能性についての法第12条(PCT35条(2))に定める見解、それを裏付ける文献及び説明

## 1. 見解

新規性(N)	請求の範囲	1, 3-5	有 無
	請求の範囲	2	
進歩性(IS)	請求の範囲		有 無
	請求の範囲	1-5	
産業上の利用可能性(IA)	請求の範囲	1-5	有 無
	請求の範囲		

## 2. 文献及び説明(PCT規則70.7)

文献1: JP 2527144 Y2 (モレックス インコーポレーテッド)  
1997.02.26  
文献2: JP 6-60953 A (モレックス インコーポレーテッド)  
1994.03.04  
文献3: JP 4-370677 A (日本エー・エム・ピー株式会社)  
1992.12.24  
文献4: JP 2002-93502 A (富士通テン株式会社, エスエムケイ株式会社), 2002.03.29

請求の範囲1, 5に係る発明は、国際調査報告で引用された文献1(段落【0014】-【0020】)と、国際調査報告で引用された文献2(第6欄第22-33行)とにより、進歩性を有しない。文献1のコンタクト部ハウジング2の左右後部壁7A, 7Bがテール部ハウジング3の左右後部に於けるストッパー9A, 9Bに当接する構造に代えて、文献2の可動ハウジング9の底面27が雌端子5群の各雌端子5の受け部26に受け止められ可動ハウジング9を支持する構造を用いるようにすることは、当業者にとって容易である。

請求の範囲2に係る発明は、文献1の段落【0014】-【0020】に記載されているので、新規性、進歩性を有しない。

請求の範囲3に係る発明は、文献1及び文献2と、文献3(第4欄第14-18行)とにより、進歩性を有しない。文献3に示された各コンタクト40'の接触部41'が第2ハウジング30'の中央突状部36の側面の溝37から外方に弾性的に突出する構成のコンタクト配置構造は周知の技術であるから、この配置構造を文献1及び文献2のコンタクトに適用することは、当業者にとって容易である。

請求の範囲4に係る発明は、文献1及び文献2と、文献4とにより進歩性を有しない。文献4の第10図に示されたコンタクトの千鳥状配列構成は周知の技術であるから、この配列構成を文献1及び文献2のコンタクトの配列構成として用いることは、当業者にとって容易である。